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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/451,035 05/25/95 RAMANATHAN

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VO, H EXAMINER

ART UNIT

PAPER NUMBER

2414

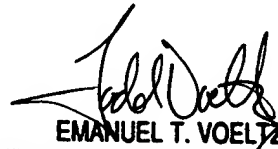
DATE MAILED:

06/05/96

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SEE ATTACHMENTS


EMANUEL T. VOELTZ
SUPERVISORY PATENT EXAMINER
GROUP 2400

5-28-96

Office Action Summary

Application No.

08/451,035

Applicant(s)

Ramanathan

Examiner

HIEN VO

Group Art Unit

2414



☒ Responsive to communication(s) filed on Feb 23, 1996

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6

☒ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Part III DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed on 02/23/96 with respect to claims 1-20 have been considered but are deemed to be moot in view of the new grounds of rejection.
2. Claims 1-20 are presented for examinations.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Rejections - 35 USC § 103

- JW*
5-17-96
4. Claims 1 ~~and~~ ^{thru} 20 are rejected under 35 U.S.C. § 103 as being unpatentable over Preston (IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, Vol. 35, No. 2, March 1988, page 122-139) further in view of Alasaarela et al. (Prior art, J Ultrasound Med 9:23-34, 1990).

With respect to claims 1-3 and 6, Preston discloses the NPL Ultrasound beam calibrator (see abstract) that includes a processor, a storage device, at least one output device, at least one input device (see fig.5), a software means (see page 126, column 1, lines 28-34) but Preston fails to disclose a phantom test object in image to determine the characteristics of the scanner. However, Alasaarela et al. disclose the evaluation of

the properties of ultrasound diagnostic scanner which includes test apparatus and specimens such as phantom, image recording and tissue specimens (see page 26, paragraph 3). Therefore, it would have been obvious to one ordinary skill in the art at the time of invention to combine the teaching of Alasaarela et al. with those of Preston since B teaches evaluation of image quality of ultrasound scanner in medical diagnostics which may have been incorporated into any the NPL ultrasound beam calibrator.

With respect to claims 4-5, Preston discloses the invention as claimed except teaches output device is printer and display screen. However, Preston used an IBM PC to control the whole measurement process. Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made to recognize that a printer and display screen must include in an apparatus of Preston.

With respect to claims 7-20, Preston discloses the invention as claimed but fails to teaches the step of selecting an image involves selecting a region of the phantom test object such as test object in axial and lateral directions, evaluating calibration, uniformity, vertical pin objects, horizontal pin objects, cyst object tumor object, distance accuracy in axial and lateral directions, dead zone, penetration depth and several set of test. However, Alasaarela et al. suggest a new procedure for testing the image quality of diagnostic ultrasound scanner which includes all the limitations of the test procedure. Therefore,

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Art Unit: 2414

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it would have been obvious to one ordinary skill in the art at the time of invention to combine the teaching of Preston with those of Alasaarela et al. since B teaches the evaluation of the properties of ultrasound diagnostic scanner which may have been incorporated into any method and apparatus for evaluating scanners.

Conclusion


5. Claims 1-20 are rejected.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Hien Vo, whose telephone number is (703) 308-5253. The examiner can normally be reached on Monday-Friday from 9:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd E. Voeltz, can be reached on (703) 305-9714. The fax phone number for this Group is (703) 308-9731.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3800.

VXH
HIEN VO
May 27, 1996


EMANUEL T. VOELTZ
SUPERVISORY PATENT EXAMINER
GROUP 2400

5-28-96